

ABB BALDOR RELIANCE III

Customer information packet

FPM2542T-5

50HP, 3525RPM, 3PH, 60HZ, 324TS, 4044M, OPSB, F

Specifications

Enclosure	OPSB
Frame	324TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CSA EEV
	UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	46.000 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	46.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	F
Lifting Lugs	Standard Lifting Lugs

Part Detail

Revision	E
Type	AC
Mech. spec.	40H07
Base	
Status	PRD/A
Elec. spec.	40WGX356
Layout	40LYH007
Eff. date	07-24-2023
CD Diagram	CD0382
Poles	02
Leads	6#8
Proprietary	False
Created date	07-20-2016

Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4044M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.69 IN
Power Factor	87
Product Family	Fire Pump Motor
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3525 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3454L													
CAT.NO.	FPM2542T-5				CUST P/N					I.P.	23		
SPEC.	40H007X356H2				SER.NO.					FRAME	324TS		
HZ	60	HP	50		RPM	3525	HZ		HP		RPM		
VOLTS	575			CODE	F		VOLTS				CODE		
AMPS	46			DES	B		AMPS				DES		
EFF	92.4	SER.F.	1.15		PF	87		EFF		SER.F.		PF	
RATING	40C AMB-CONT				DE BRG	6312		GREASE	POLYREX EM				
BLANK					ODE BRG	6309		MTR. WT.	449				
					CLASS	F	PH	3					
					ENCL	OPSB	CC	010A					
HTR-VOLTS		HTR-AMPS		HTR-WATTS									

AC Induction Motor Performance Data

Record # 58307

Typical performance - not guaranteed values

Winding: 40WGX356-R001			Type: 4044M		Enclosure: OPSB		
Nameplate Data			575 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		50	Full Load Torque		74.2 LB-FT		
Volts		575	Start Configuration		direct on line		
Full Load Amps		46	Breakdown Torque		235 LB-FT		
R.P.M.		3525	Pull-up Torque		86.3 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		125 LB-FT	
NEMA Design Code		B	KVA Code	F	Starting Current		280 A
Service Factor (S.F.)		1.15	No-load Current		12.7 A		
NEMA Nom. Eff.		92.4	Power Factor	87	Line-line Res. @ 25°C		0.262 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		44°C
S.F. Amps					Temp. Rise @ S.F. Load		53°C
					Locked-rotor Power Factor		24.2
					Rotor inertia		1.89 LB-FT2

Load Characteristics 575 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	80	86	87	88	88	88
Efficiency	89.5	92.6	93.2	92.4	91.8	90	92
Speed	3583	3565	3547	3527	3504	3478	3513
Line amperes	17.3	25.5	35.4	46.3	58	70.5	53.3

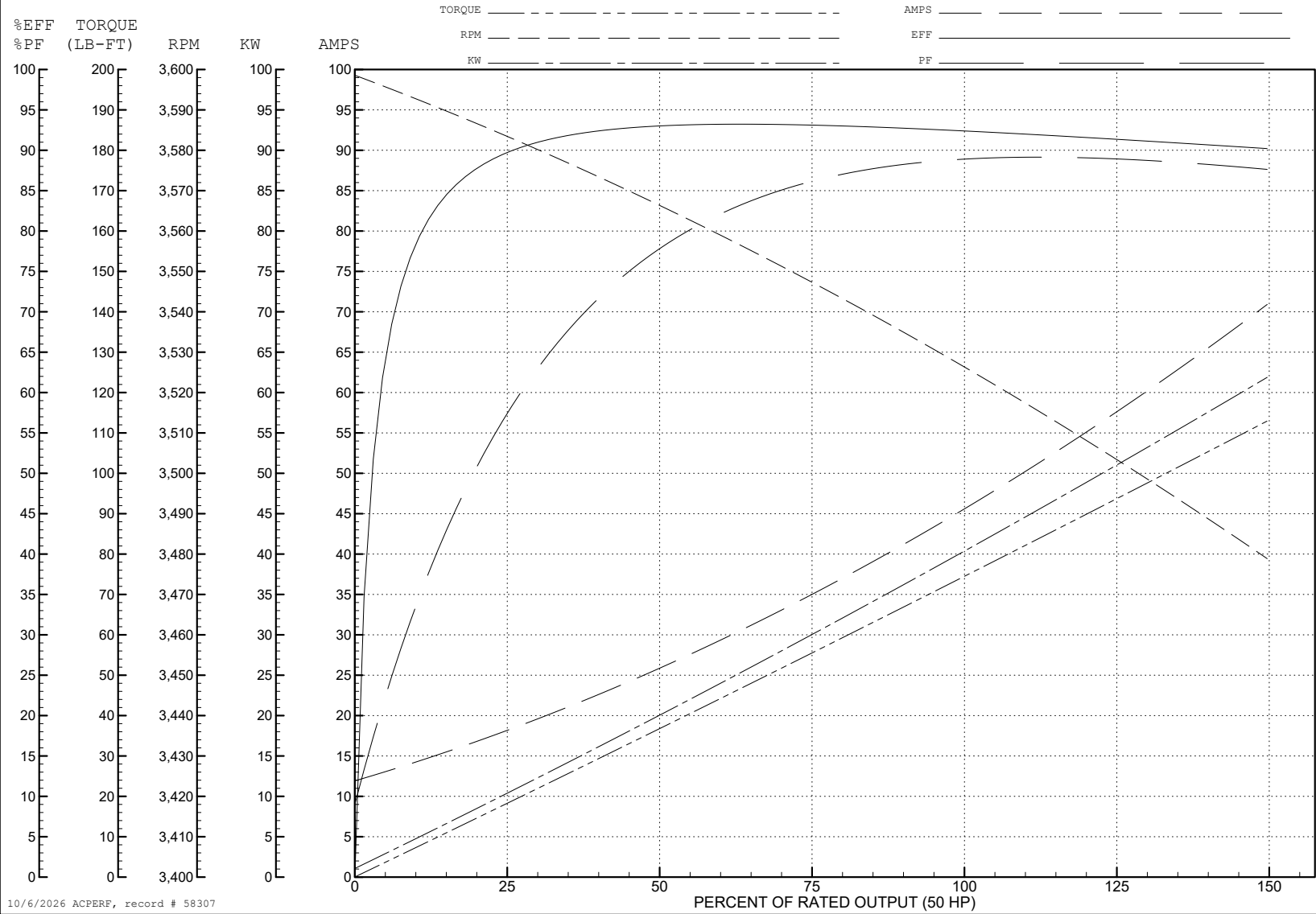
ABB Motors and Mechanical Inc.

WINDING # 40WGX356

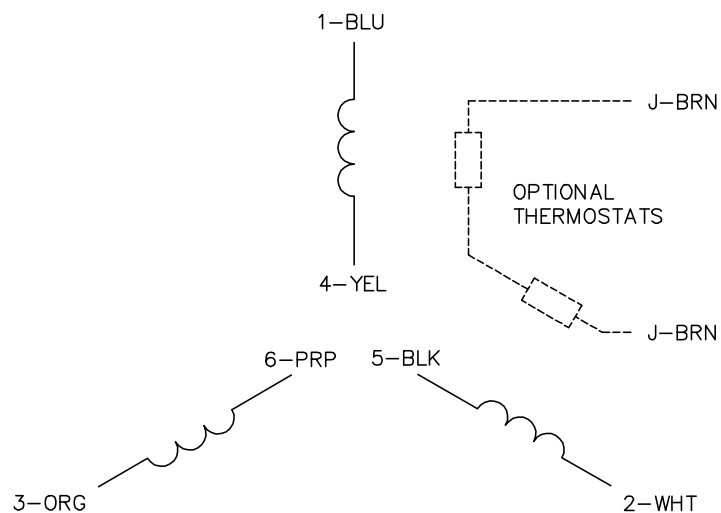
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3525 RPM 575 V 4044M

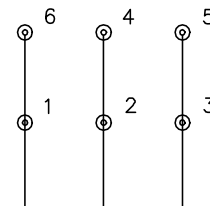
TORQUES (LB-FT): PO=235 PU=86.3 LR=125 LRA=280



CD0382

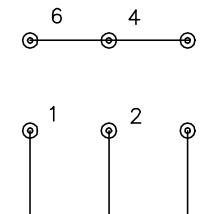


**RUN CONNECTION
(1D)**



LINE

**START CONNECTION
(1Y)**



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.
5. FOR ACROSS-THE-LINE STARTING, USE 'RUN' CONNECTION.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: F

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\243

REVISED: 09:05:32 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1

CD0382